UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

OCT 25 2010

Colonel Steven J. Roemhildt
District Engineer
Mobile District Corps of Engineers
Attn: Casey Ehorn
Birmingham Field Office
218 Summit Parkway, Suite 222
Homewood, Alabama 35209

Subject: Public Notice SAM-2010-01125-CHE; USS Real Estate, Flemming Farms

Dear Colonel Roemhildt:

The U.S. Environmental Protection Agency (EPA), Region 4, has reviewed Public Notice (PN) SAM-2010-01125-CHE, dated September 3, 2010. The applicant, USS Real Estate, is requesting authorization to deposit fill material associated with development of the Flemming Farms subdivision in Jefferson and Shelby Counties, Alabama, including development of residential lots and impoundment of a tributary to the Cahaba River for creation of an amenity pond. The proposed activities would directly impact 0.6 acres of wetlands, 0.96 acres of open water, and 6,149 linear feet of streams in the Cahaba River watershed (HUC 03150202). We previously expressed concerns regarding this project in our letter of September 27, 2010. To our knowledge, the project has not changed since that time, so the concerns expressed in that letter about the project's conformity with the Section 404 (b)(1) Guidelines (Guidelines) and the implementing of regulations at 40 CFR Part 230 remain. Additional concerns have since arisen about the presence of threatened and endangered species, as well as the adequacy of the proposed compensatory mitigation in addressing the goal of "no net loss" of aquatic resources. The burden to demonstrate compliance with the Guidelines rests with the permit applicant.

The streams on the project site are tributaries to the Cahaba River, which runs along the southeast margin of the project site. The Cahaba River is Alabama's longest remaining stretch of free-flowing water, and is the primary drinking water source for one-fifth of the State's population. American Rivers has reported the Cahaba as one of the 10 most endangered rivers in North America. The Nature Conservancy ranks the Cahaba Watershed as the 29th most critical for protecting biodiversity out of 2,000 total watersheds in the United States. With 131 different fish species, no other river in North America has more species of fish per mile than the Cahaba River, 18 of which are found nowhere outside the Mobile River Basin. The Cahaba River is an Outstanding Alabama Water. EPA considers the Cahaba River and its tributaries to be Aquatic Resources of National Importance.

The regulations at Section 230.10(a) stipulate that no discharge of dredge and/or fill material into waters of the United States shall be permitted if there is a less environmentally damaging practicable alternative to the proposed project, provided the alternative does not have

other significant adverse environmental consequences. Moreover, when activities associated with proposed impacts to special aquatic sites are not water-dependent, practicable alternatives that do not involve special aquatic sites are presumed to be available. Residential development is not an inherently water-dependent activity. Most, if not all, of the proposed direct impacts are readily avoided by not developing lots with streams or wetlands and/or reconfiguring site design to incorporate (undeveloped) streams and their buffers. It is unclear from the PN whether streams would be piped or simply filled in, but EPA strongly opposes impacts to waters of the United States, a public resource, for gaining of "fast lands" for convenience in development.

It does not appear that an alternatives analysis has been conducted as called for in Section 230.10(a), but many alternatives to an amenity pond are readily available that would not involve impacts to aquatic resources. A June 8, 1993, U.S. Army Corps of Engineers (Corps) Memorandum for Commander with the subject line "Clarification of Headquarters Guidance-Permitting of Recreational/Aesthetic Impoundments" established a "bottom line" test authorizing recreation and/or aesthetic impoundments: "impoundments that are proposed only for recreational and/or aesthetic purposes generally should not be permitted when they are proposed in important wetlands and other aquatic resources." The Wilmington Corps District has also developed useful guidelines regarding these types of ponds. Other lakes and resources for water-related recreation exist in the area, and should be considered as part of an alternatives analysis.

The applicant should also consider other alternatives that provide "value added" amenities to the subdivision such as swim/tennis facilities and preservation of green space along stream corridors. As described in the proposal (per the PN), the Cahaba River is a valued ecological resource, and provides habitat for many threatened and endangered species. Taking advantage of the proximity of this resource by creating walking/hiking trails, wildlife/nature viewing areas, and parks (for example) could provide a valuable amenity for residents as an alternative to impacting the ecosystem to create an amenity pond.

Aside from direct impacts from filling of aquatic resources, secondary and cumulative impacts of the proposed development and change in land use need to be taken into consideration, as well. The secondary effects of residential development can include runoff carrying lawn-related pesticides and petroleum byproducts, increased impervious surface cover from the development and infrastructure required to serve a new subdivision, increased erosion and sedimentation from greater stormwater velocities, eutrophication, changes in temperature associated with increases in impervious surfaces and removal of shading vegetation, and resultant changes in dissolved oxygen. To avoid and minimize these effects, low-impact development practices should be utilized to prevent such problems, and vegetated buffers established to protect both streams and wetlands.

The potential for eutrophication and increased erosion are of particular concern because of existing impairments on the Cahaba River. The subject segment of the Cahaba has both a 303(d) listing for sedimentation and an approved Total Maximum Daily Load (TMDL) for nutrients. A TMDL to address sediment is scheduled to be conducted in 2010. This TMDL may result in additional requirements for the control of sediments for these waterbodies. According to 40 CFR Part 230.10(b), no discharge may be authorized if it causes or contributes to violations of any applicable State water quality standard or violates any applicable toxic effluent standard;

Section 230.10(c) further prohibits discharges that would cause or contribute to significant degradation of the waters of the United States. The nature of the proposed activities and the siting along the Cahaba make it very likely that this project would aggravate the existing impairments. The potential for new development to facilitate additional development in the watershed by establishing infrastructure (e.g., roads, utilities) in an undeveloped area also adds to the potential for cumulative effects.

EPA also has significant concerns that the effect of conversion of these streams into an amenity pond could result in the elimination of existing uses of the streams in and downstream of the area of the proposed project, including the segments of the streams that could become the tailrace waters of the pond during and after impoundment. The conversion may also require a change in the designated uses that are currently assigned to these streams by the State of Alabama. Prior to the conversion, it must be demonstrated that such a conversion complies with all aspects and requirements of Alabama's antidegradation policy (at *Alabama Department of Environmental Management, Water Quality Criteria, Chapter 335-6-10-.12*) as well as any other applicable provision of Alabama's water quality standards regulations.

In their letter of October 19, 2010, the U.S. Fish and Wildlife Service (FWS) described that the Cahaba River adjacent to the site provides designated critical habitat for eight freshwater mussel species, and that additional protected species may occur in the vicinity of the proposed project. Moreover, FWS surveys this year found three protected species in the reach of the Cahaba River adjacent to the proposed project site, including the threatened Goldline darter (*Percina aurolineata*), and the endangered Cylindrical lioplax (*Lioplax cyclostomaformis*) and Fine-lined Pocketbook (*Lampsilis altilis*). Part 230.10(b) prohibits discharges that jeopardize the existence of threatened or endangered species, or that could adversely modify critical habitat. The Goldline darter is sensitive to water quality impacts, including algal growth that could result from eutrophication associated with development. Freshwater mussels such as the Fine-lined Pocketbook are typically sensitive to water quality changes, particularly sedimentation and other changes that may result from impoundment. Increased erosion and other changes (e.g., increased temperature, decreased dissolved oxygen) could adversely modify habitat or other conditions for all three species.

Section 230.10(d) of the Guidelines prohibits issuance of a permit to fill aquatic resources "unless appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem." Specifically, no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem. As described above, given that the proposed activities are not water-dependent, the majority, if not all, of the proposed impacts should be avoided. Unavoidable impacts should then be minimized as much as possible before compensatory mitigation is considered. Once information is provided as to how project alternatives, then avoidance, then minimization components comply with the Guidelines, we welcome the opportunity to further discuss appropriate compensatory mitigation for this project. However, it should be noted that several elements of the proposed mitigation are not in accordance with the 2008 Mitigation Rule. Among the criteria for the use of preservation as an approach to compensatory mitigation is that the resources be "under threat of destruction or adverse modifications." To our knowledge, the applicant has not demonstrated that the subject

resources are under such a threat. In addition, although some preservation and enhancement of buffers may be appropriate to offset any impacts allowed to riparian buffers, the proposed approach relies solely on these, and is not adequate for addressing the goal of 'no net loss' of aquatic resources. Other forms of impact (e.g., to the streams themselves) should be compensated for in kind, as required by the 2008 Mitigation Rule. In addition, it has come to light that the proposed off-site mitigation area is already the subject of a FWS Partners Project, including agreements with the landowner for activities that would enhance that same area, and that the landowner had no foreknowledge of the proposed mitigation work until approached by the FWS. The compensatory mitigation needed should be greatly reduced by avoidance and minimization measures readily available, but the appropriateness and viability of any mitigation plan would need to be fully addressed.

Based on the above observations, EPA has determined that the project, as currently proposed, does not comply with the Guidelines and will have substantial and unacceptable adverse impacts on an ARNI. Therefore, we recommend denial of the project, as currently proposed. This letter follows the field-level procedures outlined in the August 1992 Memorandum of Agreement between the EPA and the Department of the Army, Part IV, paragraph 3(b) regarding Section 404(q) of the Clean Water Act.

Thank you for the opportunity to comment on this PN. If you have any questions regarding these comments, please contact Rosemary Hall (Hall.Rosemary@epa.gov or 404-562-9846) or Jennifer Derby (Derby.Jennifer@epa.gov or 404-562-9401).

Sincerely,

for Gwendolyn Keyes Fleming
Regional Administrator

cc: ADEM, Montgomery – Brandy Bowen, Aaron Peters
FWS, Daphne – Josh Rowell, Andy Ford
ADCNR, Montgomery – Matthew Marshall
Cahaba River Society, Birmingham – Randall Haddock
Alabama Rivers Alliance, Birmingham – Mitchell Reid